Zero-based print journal collection development in a community teaching hospital library: planning for the future ⚚

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Objectives: The paper describes and evaluates the success of a zero-based collection development approach to print serials in a community teaching hospital.

Methods: The authors first assessed the environmental factors that would determine future needs of the medical library and its customers. Liaisons to various departments and constituencies were substantially involved in the data-gathering phase. Using newly defined collection parameters, a list of journals to consider was compiled and each journal was categorized justifying its inclusion. Any title not having a strong fit in at least one category was eliminated from further consideration.

Results: Overall, 21 subscriptions were cancelled and 34 were added. Despite a 15% increase in total subscription costs, mostly due to normal annual journal price increases, the average cost per journal went down from $344 to $327. Journal usage went up over 30%, interlibrary loan lending went down 25%, and borrowing went up 20%.

Conclusion: As resources available to libraries decline, it becomes critical that collections and services are continually and systematically reviewed with a view to keeping them aligned with the mission of the organization, needs of the customers, and emerging trends. Zero-based collection development can be a valuable tool in bringing a print journal collection into closer alignment with the needs of library customers.

INTRODUCTION

Each year, serials librarians are faced with the challenge of renewing print journals. Consideration must be given and concessions made to changes in the budget, the ever-growing popularity of electronic journal collections, the reduction in space for archiving, and the changing needs of library customers. In addition,

⚚ This article has been approved for the Medical Library Association's Independent Reading Program.

the parent institution may have added or deleted education programs or services requiring changes in focus. In the context of the prevailing issues of the year, the librarian must attempt to cultivate a useful, accessible, within-budget print journal collection. Too often, this decision-making process is conducted at the level of what holdings must be added and what holdings can be done without.

Zero-based collection development is based on the concept of zero-based budgeting (ZBB). ZBB essentially means to begin from scratch and justify any addition to the budget [1] based on customer needs, organizational mission, and future projections. When

practicing ZBB, ''The future, and what is to be accomplished in this future, is paramount'' [2]. This is also true with print journal collections. While making decisions about print subscriptions for the following year, serials librarians view the decisions in a long-term context of the collection development process.

Zero-based methodology is also used in the curriculum development process. Paulsen and Pesau call it zero-based curriculum review (ZBCR), in which the goal is ''to help us move from an 'accidental' curriculum to an 'intentional' curriculum'' [3]. In the ZBCR process, the curriculum is rebuilt through a series of steps based on current student competency requirements, changes in technology and science, and newly established learning objectives. Similar steps can be taken by the serials librarian to assure that the collection remains dynamic and responsive to customers' needs.

When discussing the current and future environmental influences on the library, the staff realized that past processes for collection review had been inadequate and needed to be significantly reformulated. The library director, having previously been an accountant, suggested a zero-based approach that would accommodate the increasingly diverse needs of our individual customers and the curriculum changes in the graduate medical education programs.

THE INSTITUTIONAL CONTEXT

Easton Hospital is a corporate-owned, 369-bed community teaching hospital with 2 residency programs. The residency programs include a total of 38 residents, 24 in internal medicine and 14 in general surgery. Through affiliations with 4 universities, the hospital concurrently hosts approximately 20 rotating medical, physician assistant, and pharmacy students. An active evidence-based medicine/evidence-based surgery (EBM/EBS) training program for residents is run through the collaborative efforts of a medical librarian, research coordinator, an attending surgeon, and the program director for internal medicine [4].

Community Health Systems (CHS) purchased Easton Hospital, a nonprofit hospital, in October 2001. At the time of purchase, it was the only teaching hospital of the approximately seventy hospitals owned by CHS. Currently, it is one of three teaching hospitals in the organization.

The Frank J. D'Agostino M.D. Medical Library is located in a prime foot-traffic area near the hospital entrance and across from the surgical suites. Due to the location, the library experiences heavy usage for not only quiet studying and database usage, but also quick checks of patient lab results and colleague consultation. In addition, the library is a conveniently located gathering place. Due to a recent donation of space to the adjacent cardiac catheterization facility, archival storage space and current journal display space has been reduced. A large construction project currently underway includes building a new library of similar size right off the new lobby.

HISTORY OF THE COLLECTION

Ten years ago, the library subscribed to, and archived for 15 years, approximately 200 print journal titles. In addition, an offsite storage facility housed archived journals for more than 40 titles, with some going back to the 1950s. Over the years as the budget started to shrink due to the poor financial health of the hospital, the print collection shrunk. Three changes in directors in 3 years also left their mark on the collection. When the current director took over in 2001, the library subscribed to almost 150 print journal titles.

The change in ownership of the hospital in 2001 stopped the budget decline, but an increasing demand for electronic access needed to be addressed. The library already offered a number of databases but still lacked organized, easy, electronic access to journals. In 2002, to justify a large investment in aggregated journal databases, a project was initiated to eliminate all of the database-duplicated print journals and low-use journals. To preserve current access, if a journal was embargoed more than a month in the database, the print copy was kept. As a result, more than 50% of the print collection was eliminated. Customer comments were tracked to determine if any journals had obviously been missed. Two comments were received in the following 6 months, and 2 journals were added to the list for re-subscribing the following year.

With the new hospital owner, facility changes included plans to raze the building housing the archived older journals and construct a new library. The new library would have less print collection space but would include a teaching computer lab, which was much needed for the educational support the library and research staff provided to the residency programs and medical staff. In planning for space changes two to three years in the future, the changing educational needs of the residency programs in response to the general competencies of the Accreditation Council for Graduate Medical Education (ACGME) [5, 6], and the need to provide an increasing array of services to a wider variety of customers without dramatic budget increases, the staff decided to undertake a zero-based print journal collection development project.

METHODS

After the significant increase in electronic journals and a more than 50% reduction in the print journal subscriptions, staff were left asking, ''Do the remaining print journal subscriptions meet our current and future needs?'' The zero-based methodology calls for collecting information about any curriculum or organizational service changes, future projected changes, and other applicable environmental factors. The authors acted as the data collectors during this project and were supported by a library assistant. Liaisons played a key role in this process. The liaisons were substantially utilized during the initial data-gathering stage. Liaisons included internal medicine and general surgery residents, the chief medical officer, the resi-

Figure 1
Total number of reasons for decision to subscribe to each print journal holding (n = 75)

Figure 2
Main reason for print journal holding
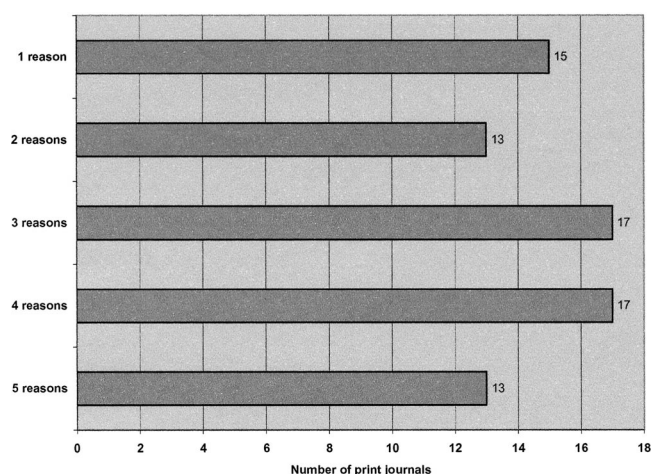
dency program directors, and the assistant chief nursing officer. Rotating students were interviewed as needed.

Environmental factors that needed to be considered included curriculum changes due to the ACGME general competency requirements, an active EBM/EBS training program, hospitalists added to the hospital staff who were heavy users of the library, a sizeable addition of electronic resources, the loss of print storage space due to the construction project, a new library under development with less planned print storage and more technology space, and the fact that the use of print journals had dropped off substantially. In addition, the library and research departments were much more involved in teaching than in previous years, and residents and medical staff were conducting more research and scholarly activity. Based on the library's mission and the scope of our programs, a deeply archived journal collection was not necessary. Finally, the library did not participate in any consortia or collection agreements dictating the need to maintain particular holdings.

Using the collected environmental information and liaison feedback, the next step was to define the parameters of the new print journal collection. The new collection would be geared toward browsers and heavy in EBM/EBS educational resources. It would include journals frequently used by residents for submitting or citing in their scholarly activities. The collection would support the special needs of residents, students, and hospital-based physicians and would include basic journals in the main rotation subject areas. The print journal collection would include few nursing resources as the nursing staff remotely access the electronic nursing databases via the library Website, and the library would no longer offer deep layers of specialty journals.

Using the new print collection parameters and liaison feedback, staff compiled a list of potential journals
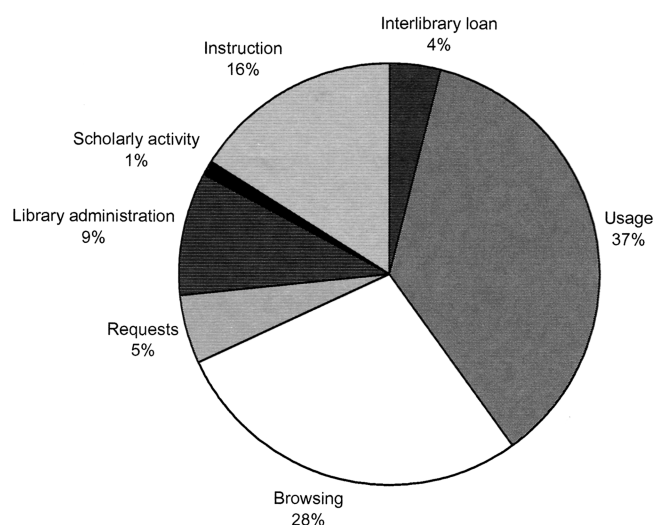
to consider for the new collection. In the next step, each potential journal was placed in an Excel spreadsheet in one or more of the following categories:

- title included on the Brandon/Hill list [7]
- title with significant requests via interlibrary loan
- usage of title, if in current collection
- title identified as a ''gold standard'' title (e.g., *JAMA*)
- browsing title identified by liaison(s) as preferred in print
- title frequently requested by library customer(s)
- title often used for scholarly activity (e.g., publication site)
- instructional resource used by the attending faculty, library, or research departments

Any title not having a strong fit in at least one category was eliminated from further consideration. For each remaining title, the authors independently assigned one of the above categories as the main reason for potentially subscribing to it. The few disagreements in categorization were resolved through discussion.

RESULTS

The original print journal collection held 62 titles. As a result of the zero-based print journal collection development project, 21 subscriptions were cancelled and 34 journals were added. Of the 75 resulting journals, 80% fit in multiple categories as discussed above and 63% were listed in 3 or more categories (Figure 1). Figure 2 shows the results of assigning the main reason for subscribing. The most common main reason was past usage of the title (37%), followed by browsing (28%) and instruction (16%).

Some key characteristics of the collection before and after the project are shown in Figure 3. Although the percentage of titles indexed in MEDLINE changed little, the number of titles included on the Brandon/Hill

Figure 3
Characteristics of the collection before and after zero-based collection development project
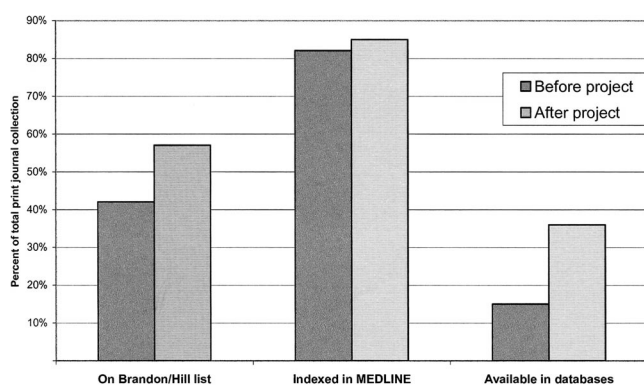
list increased 15%. The number of print journals duplicated in electronic format rose from 15% to 36% of the holdings in the new collection. Despite a 15% increase in total subscription costs, mostly due to normal annual journal price increases, the average cost per journal went down from $344 to $327. In the year following the changes to the print journal collection, journal usage went up over 30%, interlibrary loan lending was down 25%, and borrowing was up 20%.

DISCUSSION

Every library situation is different. The library's and parent organization's mission must be considered, along with the diverse stakeholders, education programs, services, and consortial holding agreements. Collection development is a social and political process [8], and thus outside influences and opinions are unavoidable. Providing library customers with a sense of ownership over the process through liaisons is critical. Successfully communicating the steps and the resulting changes in the collection to the customer base were directly reflected in the 30% jump in print journal usage.

Despite the significant changes to the print journal collection, the library received only one complaint in the following year about a cancelled journal. In fact, although many of the journals are now archived for much shorter periods of time (one to five years) to save space, this did not result in any comments or complaints. Interestingly, the resulting print journal collection is much more aligned with the recommended

standards of the Brandon/Hill list than before. In addition, we discovered through this process that our customers value browsing print versions of some journals that are duplicated in the databases. By building a browsing collection with general coverage of specialty subject areas rather than deep layers of specialty journals, we reduced the cost per journal, which allowed us to subscribe to more print journals.

The changes we made as a result of our zero-based project align the print journal collection much closer to the needs of our customers at the present time. This raises the question of how often the zero-based process needs to be undertaken to keep a collection fresh, cost-effective, and responsive to customer needs. While we believe it would be unnecessary to repeat this process every year, fluctuating environmental factors suggest that redoing it every five years would be reasonable. Major changes in the curriculum, library, or organization could also be a prompt to perform at least a limited zero-based review.

We also believe the zero-based process could be very useful for reviewing other service or collection areas, such as electronic resources, outreach programs, library curriculum plans, and consumer resources. As resources, and sometimes space, decline in libraries, it becomes critical to continually review collections and services in a systematic fashion to keep them aligned with the mission of the organization, needs of customers, and emerging trends.

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